

Self-Study Report (SSR) - Criterion-1

Information to be submitted by Departments/Directorates/Centres for Each Programme Offered

1	Department/Directorate/Centre/Institute:	Department of Computer Science and Engineering, North Campus			
2	Name of the Programme Offered:	1. B. Tech CSE 2. M. Tech. CSE			
3	Departmental website link of the complete/updated syllabus:	https://northcampus.uok.edu.in/syllabus.aspx?category=cse			
4	Number of Courses in the Programme?	1. B. Tech. CSE: 65	2. M. Tech. CSE: 24		
5A	Number of New Courses introduced in the Programme since 2019?	1. B. Tech. CSE: 15	2. M. Tech. CSE: Course Launched in 2022		
5B	List of New Courses introduced since 2019:				
	<i>Course Code</i>	<i>Course Title</i>	<i>Brief Description</i>		
	CSE50420	Python Programming	<p style="text-align: center;">These courses have been added in the curriculum to equip the students with the skills necessary to keep pace with the developments and advancements happening in the area of Computer Science and Engineering at local as well as global levels.</p>		
	CSE50420L	Python Programming Lab.			
	CSE60220L	Artificial Intelligence Lab			
	CSE70120L	Cryptography & Network Security Lab			
	PEC71120	Machine Learning			
	PEC71220	Software Project Management			
	PEC71420	Internet of Things (IoT)			
	PEC71520	Introduction to Big Data			
	PEC71720	Android Programming			
	PEC71820	Full stack development-I			
	PEC71920	Introduction to Data Science			
	PEC81120	Introduction to Deep Learning			
	PEC81420	Full Stack Development-II			
	PEC81920	Data Analytics with R			
	OEC7220	Latex.			
	M. Tech CSE	All 24 courses as the Programme was started in the year 2021			
5C	Departmental website link in support of New Courses introduced in the Programme since 2019 .	https://northcampus.uok.edu.in/downloads/20220418174245834.pdf			
6A	Dates of syllabus revisions during the last five years. (2019-2023)	Nov-21			

6B	Departmental website link in support of syllabus revisions.	https://northcampus.uok.edu.in/downloads/20220418174245834.pdf	
7	Are Programme Outcomes (POs) clearly mentioned in the syllabus? (Y/N)		y
8	Are the Course Outcomes (COs) mentioned for each course of the programme? (Y/N)		y
9A	Does POs & COs have relevance to local, regional & global developmental needs? (Y/N)		y
9B	List of courses addressing Local Needs:		
	<i>Course Code</i>	<i>Course Title</i>	<i>Brief Justification</i>
	CSE30220	Object Oriented Programming using Java	These courses equip the students with the skills necessary to get jobs in various sectors at national and international levels.
	CSE30320	Database Management Systems	
	CSE40220L	Web Programming Lab	
	CSE50420	Python Programming	
	PEC71720	Android Programming	
PEC71820	Full stack development-I		
9C	List of courses addressing Regional Needs:		
	<i>Course Code</i>	<i>Course Title</i>	<i>Brief Justification</i>
	CSE30220	Object Oriented Programming using Java	Programming courses, Database courses and AI courses enable students to fill jobs in local industry, Govt. and other sectors at regional and global levels.
	CSE30320	Database Management Systems	
	CSE40220L	Web Programming Lab	
	CSE50420	Python Programming	
	PEC71720	Android Programming	
PEC71820	Full stack development-I		
9D	List of courses addressing Global Needs:		
	<i>Course Code</i>	<i>Course Title</i>	<i>Brief Justification</i>
	CSE30220	Object Oriented Programming using Java	B. Tech. CSE course is inline with academic and industry requirements at global level.
	CSE30320	Database Management Systems	
	CSE40220L	Web Programming Lab	
	CSE50420	Python Programming	
	PEC71720	Android Programming	
	PEC71820	Full stack development-I	
PEC71920	Introduction to Data Science		

	PEC81120	Introduction to Deep Learning	
	PEC81420	Full Stack Development-II	
	PEC81920	Data Analytics with R	
	CSE60220	Artificial Intelligence	
10A	Does the Programme offer focus on Employability/ Entrepreneurship/ Skill development courses? (Y/N)		Y
10B	List of Employability Courses:		
	Course Code	Course Title	Brief Justification
	CSE50420	Python Programming	Python is widely used in data analysis, web development, and automation, making it a sought-after skill across various industries.
	CSE70120	Cryptography and Network Security	With increasing concerns about cybersecurity, expertise in cryptography and network security is essential for safeguarding sensitive information.
	PEC71120	Machine Learning	As AI and data-driven decision-making become integral to businesses, machine learning skills are highly valued for developing predictive models and algorithms.
	PEC71220	Software Project Management	Effective project management ensures timely and successful software development, a key aspect of delivering value to organizations.
	PEC71420	Internet of Things (IoT)	IoT connects devices and enables data-driven insights, making IoT skills crucial in sectors like manufacturing, healthcare, and smart cities.
	PEC71520	Introduction to Big Data	Understanding big data technologies and analytics is vital for handling large volumes of data efficiently.
	PEC71720	Android Programming	Mobile applications are ubiquitous, and Android development skills are essential for creating mobile solutions.
	PEC71820	Full stack development-I	Mastery in full stack development (front-end and back-end) enables professionals to create robust and scalable web applications.
	PEC71920	Introduction to Data Science	Data science skills are in demand for extracting actionable insights from complex data sets.
	PEC81120	Introduction to Deep Learning	Deep learning is integral to AI applications, including image recognition, natural language processing, and autonomous systems.
	PEC81420	Full Stack Development-II	Mastery in full stack development (front-end and back-end) enables professionals to create robust and scalable web applications.
	PEC81920	Data Analytics with R	R is a powerful tool for statistical analysis and data visualization, crucial in roles involving data analytics.
	CSE60220	Artificial Intelligence	AI skills encompass various domains like machine learning, natural language processing, and robotics, contributing to innovation in multiple industries.
	CSE40220	Web Programming	Proficiency in web programming (HTML/CSS/JavaScript) is essential for developing interactive and user-friendly web applications.
	CSE30220	Object Oriented Programming using Java	Java is widely used in enterprise software development, making OOP skills valuable in building scalable applications.
	CSE80120	Major Project work	Real-world project experience demonstrates practical skills and problem-solving abilities to potential employers.
	CSE80220	Industrial Training and Professional Viva	Industry exposure and professional assessments validate skills and readiness for employment.
10C	List of Entrepreneurship Development Courses:		
	Course Code	Course Title	Brief Justification
	OEC8120	Entrepreneurship and Professional Development.	Courses like Entrepreneurship and Professional Development, along with Professional Communication, are essential for aspiring entrepreneurs. Entrepreneurship courses provide foundational skills and knowledge necessary for starting and managing businesses, including opportunity recognition, business planning, and financial management. They also foster a business-oriented mindset and

	HUM20206	Professional Communication	offer networking opportunities with experienced entrepreneurs. Professional Communication courses are crucial for honing effective communication skills vital for pitching ideas, building relationships with stakeholders, and negotiating deals. Together, these courses prepare individuals to navigate the complexities of entrepreneurship, enhance professionalism, and access valuable resources and networks critical for startup success.
10D	List of Skill development Courses:		
	<i>Course Code</i>	<i>Course Title</i>	<i>Brief Justification</i>
	MEC20207A	Workshop Practice A	This course typically involves hands-on training in basic engineering and manufacturing skills, such as machining, welding, and fabrication, which are essential for engineering and technical roles.
	CSE50420	Python Programming	Python is a versatile programming language used extensively for data analysis, web development, automation, and artificial intelligence. Learning Python enhances coding proficiency and problem-solving skills.
	PEC71720	Android Programming	Android programming involves developing applications for Android devices using Java or Kotlin. This course equips individuals with skills to create mobile apps, a crucial skill in today's mobile-first world.
	PEC71820	Full stack development-I	These courses cover both front-end and back-end development technologies, including HTML/CSS/JavaScript for the front end and frameworks like Node.js, Express.js, and databases (e.g., SQL, NoSQL) for the back end. Mastery in full stack development enables individuals to build comprehensive web applications.
	PEC71920	Introduction to Data Science	Data science courses introduce fundamental concepts and tools used for analyzing and interpreting large datasets. Skills learned include data manipulation, statistical analysis, and data visualization using tools like Python and libraries such as pandas, NumPy, and Matplotlib.
	PEC81920	Data Analytics with R	R programming for data analytics involves statistical analysis, data visualization, and machine learning. This course enhances skills in data manipulation and exploratory data analysis using R packages like ggplot2 and dplyr.
11A	Does the programme have courses addressing Professional ethics/ gender/ human values/ environment/ sustainability & other value framework enshrined in NEP2020/etc. (Y/N)		
			Y
11B	List of courses addressing Professional Ethics:		
	<i>Course Code</i>	<i>Course Title</i>	<i>Brief Justification</i>
	OEC8120	Entrepreneurship and Professional Development.	Courses in Entrepreneurship and Professional Development, along with Professional Communication, are crucial for instilling ethical values and fostering responsible behavior in professionals. Entrepreneurship courses provide foundational skills and knowledge necessary for starting and managing businesses ethically, emphasizing integrity, transparency, and ethical decision-making in entrepreneurial endeavors. Professional Communication courses are essential for honing effective communication skills vital for ethical interactions with stakeholders, including customers, partners, and employees.
	HUM20206	Professional Communication	
11C	List of courses addressing Gender Issues:		
	<i>Course Code</i>	<i>Course Title</i>	<i>Brief Justification</i>
11D	List of courses addressing Human Value Issues:		
	<i>Course Code</i>	<i>Course Title</i>	<i>Brief Justification</i>

11E	List of courses addressing Environment Issues:		
	<i>Course Code</i>	<i>Course Title</i>	<i>Brief Justification</i>
	CHM20104	Environmental Science	This course addresses the various issues concerning Environment.
11F	List of courses addressing Sustainability issues:		
	<i>Course Code</i>	<i>Course Title</i>	<i>Brief Justification</i>
11G	List of courses addressing Other Value Framework enshrined in NEP2020/etc.:		
	<i>Course Code</i>	<i>Course Title</i>	<i>Brief Justification</i>
12A	Does the Department/Directorate/Institute/ Centre offer Diploma Programme? (Y/N)		N
12B	Details of the Diploma Programmes offered by the institutions where the students of the institution have enrolled and successfully completed during the last five years (2019-2023)		

	Programme Code	Name of Diploma Programme	Mode of Programme (Online/Offline)	Year of Offering/enrolment	Contact hours of course	Number of students enrolled in the year	Number of Students completing the course in the year	Departmental website link to the relevant document	Number of students enrolled in the year
13A	Does the Department/Directorate/Institute/ Centre offer Certificate Courses? (Y/N)								N
13B	Details of the Certificate Courses offered by the institutions where the students of the institution have enrolled and successfully completed during the last five years (2019-2023)								
	Course Code	Name of Certificate Course	Mode of Course (Online/Offline)	Year of Offering/enrolment	Contact hours of course	Number of students enrolled in the year	Number of Students completing the course in the year	Departmental website link to the relevant document	Number of students enrolled in the year
14A	Does the Department/Directorate/Institute/ Centre offer Value-Added Courses? (Y/N)								N
14B	Details of the Value Added Courses offered by the institutions where the students of the institution have enrolled and successfully completed during the last five years (2019-2023)								
	Course Code	Name of Value-Added Course	Mode of Course (Online/Offline)	Year of Offering/enrolment	Contact hours of course	Number of students enrolled in the year	Number of Students completing the course in the year	Departmental website link to the relevant document	Number of students enrolled in the year
15A	Does the Department/Directorate/Institute/ Centre offer Online Courses of MOOCs, SWAYAM/e-PG Pathshala/ NPTEL and other recognized platforms? (Y/N)								N

15B	Details of Online Courses of MOOCs, SWAYAM/e-PG Pathshala/ NPTEL and other recognized platforms where the students of the institution have enrolled and successfully completed during the last five years (2019-2023)								
	Course Code	Name of the Course	Mode of the Course-offered by the HEI or Online (Specify the platform like MOOCs, SWAYAM, etc.)	Year of Offering/enrolment	Contact hours of course	Number of students enrolled in the year	Number of Students completing the course in the year	Departmental website link to the relevant document	Number of students enrolled in the year
16A	Does the programme have Field Projects/ Research Projects /Internship in the programme? (Y/N)								Y
16B	Details of components of Field Projects / Research Projects / Internships implemented during last five years (2019-2023)								
	Course Code	Name of the course pertaining to field projects/ Research Projects /Internship		Number of Credits	Number of students undertaking course	Departmental website link to the relevant document			
	CSE80220	Industrial Training and Professional Viva		1	230				
	CSE80120	Major Project work		6	230				
CSE70320	Pre-Project Work		3	230					
17	Any other Relevant Information:								



Signature of the Head/Director of the Department / Centre / Institute

General Instructions:

1. Kindly format the syllabus in light of the instruction and discussions held in past meetings and upload the syllabus on the Departmental Website.
2. Upload valid proofs on the Departmental Website.